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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/912,407	07/26/2001	Ryota Kido	TOR-027	4257

20374 7590 09/27/2002

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EXAMINER
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ART UNIT	PAPER NUMBER
1711	

DATE MAILED: 09/27/2002

11

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/912,407	Applicant(s) KIDO ET AL.	
	Examiner Jeffrey C. Mullis	Art Unit 1711	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 March 2002* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-21* is/are pending in the application.

4a) Of the above claim(s) *1-9,19 and 20* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *10-18 and 21* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *9 10* .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

Claim 15 lacks a period. Correction is required.

Restriction to one of the following inventions is required under 35 U.S.C. § 121:

I. Claims 1-9, 19 and 20, drawn to a product, classified in Class 525, subclass 78.

II. Claims 10-18 and 21, drawn to a process, classified in Class 524, subclass 504.

The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the product as claimed can be made by a materially different process such as the process recited by claim 19 which requires the addition of B.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

During a telephone conversation with Ron Kubovcik on 9-10-02 a provisional election was made with traverse to prosecute the

invention of Group II, claims 10-18 and 21. Affirmation of this election must be made by applicant in replying to this Office action. Claims 1-9 and 19-20 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Claims 10-18 and 21 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicants regard as the invention.

Claim 10 is unclear since the "vinyl monomer mixture (a)" recited by claim 10 as well as claims 12 and other claims lack antecedent basis in claim 1 from which these claims ultimately depend.

The phrase "in the presence of emulsifier is contained in the graft copolymer (B)" makes no sense since the phrase "is contained in the graft copolymer (B)" does not appear to have any connection with the rest of this limitation, i.e. it is not clear

how the phrase "is contained in the graft copolymer (B)" pertains to the claims since this is not stated.

It is not clear what the "vinyl monomer mixture (a)" in claim 13 pertains to since claim 13 which ultimately depends on claim 1 recites no such vinyl monomer mixture.

It is not clear what is intended by "wherein in adding the graft copolymer (B), the amount of the residual monomer in the copolymer (A) is 10% by weight of less" in claim 14 since the process of adding has nothing whatsoever to do with the residual monomer content as implied by this phrase.

The first inequality in claim 15 makes no sense since the units or lack thereof are inconsistent. For instance V/v is not a unitless number despite the fact that the quantity on the far left side of the inequality is unitless and despite the fact that the units recited on the far right side of the inequality are different from those implied by V/v.

Claim 21 makes no sense since it recites "taking out a part or the whole of the resin composition" and does not recite from where and what the resin composition is being taken. Furthermore this claim recites the phrase "obtained without adding the graft copolymer (B)" despite the fact that the claims from which claim 21 depends specifically recites that the graft copolymer and the copolymer A are mixed. This feature therefore lacks antecedent basis in preceding claims. Furthermore, claim 21 is unclear

since claim 19 (from which claim 21 depends and therefore contains all limitations of claim 19) recites that resin C is previously added to the graft copolymer B "in mixing the copolymer (A)". It is not clear how these two limitations can have anything to do with each other and how something can be previously added to something in mixing two other materials.

Claims 10-18 and 21 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Owens (USP 3,843,753).

Owens discloses a composition containing 0.5-50% elastomer and the remaining portion of thermoplastic (as in applicants' acetone soluble material) which contains 0.10% of a "hydrophilic monomer" (Abstract) such as acrylic or other unsaturated acid (column 7 line 1). Note also that the phase containing the "hydrophilic monomer" may be as little as 20% attached to the rubber and most of the phase produced by polymerizing the "hydrophilic monomer" may therefore be acetone soluble (Abstract, column 10 lines 13-10). Emulsifiers may be added at column 9 lines 61-66. Note Example V for use of an extruder. The thermoplastic may contain 50-100% acrylate ester at column 7 line 61 and 0 to 40% styrene at column 8 lines 20-21. As the thermoplastic is uncross-linked, it would be expected to be acetone soluble along with the unattached graft rubber. While the amount of acrylic acid (approximately 1 weight percent) used to graft the rubber in patentees' Examples would result in a

thermoplastic fraction which had significantly more than applicants' highest level of acid value, the acid value of the combination of thermoplastic added to the composition as well as unattached copolymer resulting from grafting would be much less than the highest level of acid value recited by the claims and within the metes and bounds of 0.01 to 1 milligram KOH per gram.

It would have been obvious to a practitioner having ordinary skill in the art at the time of the invention to use applicants' level of acid value for the acetone soluble resin component since patentees' enclosed value of acrylic acid in the grafted fraction combined with the thermoplastic material is in this range absent any showing of surprising or unexpected results.

Any inquiry concerning this communication should be directed to Jeffrey Mullis at telephone number (703) 308-2820.

Jeffrey Mullis
Primary Examiner
Art Unit 1711

J. Mullis:cdc

September 25, 2002